



BAY AREA AIR QUALITY MANAGEMENT DISTRICT

PERMIT TO OPERATE

This document does not permit the holder to violate any BAAQMD regulation or any other law.

PERMIT EXPIRATION DATE

NOV 1, 2019

Plant# 208

Schnitzer Steel Products Company
1101 Embarcadero-West
Oakland, CA 94607

COPY SENT TO:

| Pamela Gray, Regional Environmental Manager
| Schnitzer Steel Products Company
| P O Box 747
| Oakland, CA 94604

Location: Adeline St, Foot of
Oakland, CA 94607

S#	DESCRIPTION	[Schedule]	PAID
6	MTGL/SEC> Crushing/shredding, Steel Shredder w/ water injection, electric, 225 tph (avg.) Abated by: A6 Water Spray System A2 Simple Cyclone A3 Irrigated Cyclone Scrubber A4 Moving Belt Dry Filter A9 Simple Cyclone A5 Mist Eliminator Emissions at: P1 Stack	[F]	508
7	MTGL/SEC> Conveying, Steel Infeed Conveyor (electric) Abated by: A6 Water Spray System A2 Simple Cyclone A3 Irrigated Cyclone Scrubber A4 Moving Belt Dry Filter A9 Simple Cyclone A5 Mist Eliminator Emissions at: P1 Stack	[F]	462
10	MINERL> Storage, contained, Cement Cement Silo Abated by: A10 Baghouse, Pulse Jet Emissions at: P10 Stack	[F]	462

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S#	DESCRIPTION	[Schedule]	PAID
11	MTGL/SEC> Screening, Auto body components, 50 tons/hr max Joint Products Plants w/ enclosure (2 Trommels, 3 Screens, Classifiers, Conveyors, and ot [exempt] Abated by: A13 Water Spray System A14 Baghouse, Pulse Jet Emissions at: P14 Stack		0
12	MTGL/SEC> Screening, Auto body components, 5 tons/hr max Drum Magnet Line W/ enclosure	[exempt]	0

3 Permitted Sources, 2 Exempt Sources

*** See attached Permit Conditions ***



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Source#	Subject to Condition Numbers
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6	23114
7	23114
10	24125
11	23114, 26401
12	23114, 26401

The operating parameters described above are based on information supplied by permit holder and may differ from the limits set forth in the attached conditions of the Permit to Operate. The limits of operation in the permit conditions are not to be exceeded. Exceeding these limits is considered a violation of District regulations subject to enforcement action.

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COND# 23114 *applies to S#'s 6, 7, 11, 12*

S-6 Shredder and S-7 Infeed Conveyor;
abated by A-6 Water Sprays,
A-2 Cyclone #2, A-3 Wet Scrubber;
A-4 Dry Filter, A-9 Cyclone #3, and
A-5 Mist Eliminator
(until installation of enclosure and upgraded
abatement system);
(A #14194; Revision 1: A #16721)

1. The owner/operator shall not exceed the scrap-in throughput limit of 720,000 tons in any calendar year at this facility.
(basis: baseline 2005 production level of 431,471 tons/yr; cumulative increase for the incremental throughput; health risk screening analysis)
2. The owner/operator shall enclose and vent the shredder to the abatement system at all times it is operating to minimize fugitive emissions.
(basis: TBACT)
3. The owner/operator shall abate particulate emissions from the shredder by water injection at a sufficient rate to ensure that non-metallic material exiting the unit be moist to the touch at all times, and abatement system consisting of cyclones, scrubber, filter, and demister at all times when the shredder is in operation. The PM grain loading at the exhaust outlet of the abatement system shall not exceed 0.01 gr/dscf.
(basis: TBACT)
4. The owner/operator shall operate the Recycling Center in such a manner that particulate emissions into the atmosphere from any operation/equipment for a period or periods aggregating more than three minutes in any hour shall not cause a visible emission which is as dark or darker than No. 0.5 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree or result in fallout on adjacent property



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- in such quantities as to cause public nuisance per District Regulation 1-301.
(basis: Regulations 6-1-301; 1-301)
5. The owner/operator shall use water spray to minimize fugitive dust emissions from material/scrap handling and storage to comply with condition 4. The owner/operator shall pave the site truck transport roads and sweep/spray with water/other actions deemed appropriate by the District, if necessary, to minimize fugitive dust emissions from trucking activities to comply with condition 4.
(basis: Regulations 6-1-301; 1-301)
6. The owner/operator shall not exceed a total of 26 ship calls and 63,875 truck calls per calendar year to haul in/out scrap/materials at the facility.
(basis: health risk screening analysis; CEQA review)
7. In order to demonstrate compliance with condition numbers 1 and 6, the owner/operator shall keep records of monthly and yearly throughput of materials, ship and truck calls in a District approved log. The log shall be maintained for a period of at least 24 months from the date of data entry and shall be made available to the District staff upon request for inspection.
(basis: recordkeeping)

COND# 24125 applies to S# 10

S-10, Cement Silo

1. The Permit Holder shall ensure the visible particulate emissions from the silo do not exceed Ringelmann Number 0.5 (or equivalent opacity) or result in fall out on adjacent property in such quantities as to cause annoyance to any other person.



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(basis: Regulation 6-1-301, 1-301)

2. The Permit Holder shall not exceed a throughput of 21,900 tons of cement in any consecutive 12-month period.

(basis: cumulative increase)

3. The Permit Holder shall abate emissions from the silo by a filter, A-10, at all times the silo is in operation. The filter shall be functioning properly within the manufacturer's specified pressure drop range. (basis: cumulative increase)

4. In order to demonstrate compliance with part 2 of the condition, the Permit Holder shall keep daily, monthly, and consecutive 12-month records of the material throughput in a District approved logbook. The records shall be kept on site for at least 24 months from the date of data entry and be made available to the District staff for inspection.

(basis: cumulative increase, recordkeeping)

COND# 26401 applies to S#'s 11, 12

Upon installation of enclosure and upgraded
Upon installation of enclosure and upgraded abatement
abatement
system for S-6:

system for S-6:

S-6 Shredder and S-7 Infeed Conveyor;
S-6 & S-7 Shredder and Infeed Conveyor;
abated by A-6 Water Sprays, A-11 Venturi
abated by A-6 Water Sprays, A-11 Venturi
Scrubber, and A-12 Venturi Scrubber

Scrubber,

(A #14194; Revision 1: A #16721; A #27762)

and A-12 Venturi Scrubber

1. The owner/operator shall not exceed the scrap-
(A #14194; Revision 1: A #16721; A #27762)

in throughput limit of 720,000 tons in any

1. The owner/operator shall not exceed the scrap-



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calendar year at this facility.
in throughput limit of 720,000 tons in any
(Basis: Regulations 2-1-301 - baseline 2005
calendar year at this facility. (Basis:
production level of 431,471 tons/yr - and
Regulations 2-1-301 - baseline 2005 production
2-5-302 and Cumulative Increase for the
level of 431,471 tons/yr - and 2-5-302 and
incremental throughput)

- Cumulative Increase for the incremental
2. The owner/operator shall enclose the shredder, throughput)
 2. S-6, and shall vent the shredder, at all times
The owner/operator shall enclose the shredder, it is operating, to the Venturi Scrubbers, A-S-6, and shall vent the shredder, at all times 11 and A-12. The owner/operator shall it is operating, to the Venturi Scrubbers, A-minimize fugitive emissions from the shredder 11 and A-12. The owner/operator shall enclosure during shredder operation by (a) minimize fugitive emissions from the shredder designing the enclosure such that the total enclosure during shredder operation by (a) surface area of all openings in the enclosure designing the enclosure such that the total does not exceed 5% of the total surface area surface area of all openings in the enclosure of the enclosure walls, floor, and ceiling; does not exceed 5% of the total surface area (b) using curtain walls or strip curtains on of the enclosure walls, floor, and ceiling; the inlet feed conveyor opening; and (c) (b) using curtain walls or strip curtains on ensuring that the ventilation fan is operating the inlet feed conveyor opening; and (c) within its design range. The owner/operator ensuring that the ventilation fan is operating shall demonstrate that the ventilation fan is within its design range. The owner/operator operating within its design range by shall demonstrate that the ventilation fan is

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- maintaining the amperage greater than [xxx, operating within its design range by tbd by source test] amperes during shredder maintaining the amperage greater than [xxx, operation. The owner/operator shall operate tbd by source test] amperes during shredder each Venturi Scrubber in accordance with operation. The owner/operator shall operate manufacture specifications. The each Venturi Scrubber in accordance with owner/operator shall demonstrate this by manufacture specifications. The maintaining a minimum water flow rate of [xx owner/operator shall demonstrate this by gallons per minute (gpm), tbd after source maintaining a minimum water flow rate of [xx test] and an effective pressure differential gallons per minute (gpm), tbd after source operating range [xx to xx inches of H2O, tbd test] and an effective pressure differential after source test]. (Basis: TBACT)
- operating range [xx to xx inches of H2O, tbd
3. Based on the results of the source testing after source test]. (Basis: TBACT)
3. required by Part 4, the owner/operator shall Based on the results of the source testing propose new emission rate limits for the required by Part 4, the owner/operator shall shredder at stack P-11. The owner/operator propose new emission rate limits for the shall propose limits for each of the following shredder at stack P-11. The owner/operator pollutants: Precursor Organic Compounds (POC), shall propose limits for each of the following PM10, PM2.5, benzene, hexavalent chromium, pollutants: Precursor Organic Compounds (POC), PCBs, cadmium, lead, tetrachloroethylene, and PM10, PM2.5, benzene, hexavalent chromium, trichloroethylene. The proposed emission rate PCBs, cadmium, lead, tetrachloroethylene, and limits shall be submitted to the District trichloroethylene. The proposed emission rate



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within 90 days of receiving the Part 4 source limits shall be submitted to the District test results. The District will analyze the within 90 days of receiving the Part 4 source proposed limits, notify the owner/operator of test results. The District will analyze the any necessary changes to these limits, and proposed limits, notify the owner/operator of revise this condition to include the new stack any necessary changes to these limits, and limits and associated monitoring requirements revise this condition to include the new stack for P-11. In addition, the owner/operator limits and associated monitoring requirements shall estimate the fugitive emission rates for P-11. In addition, the owner/operator that are not captured by the new shredder shall estimate the fugitive emission rates enclosure. (Basis: Cumulative Increase and that are not captured by the new shredder Regulation 2-5-302)

4. enclosure. (Basis: Cumulative Increase and Source Testing Requirements for Parts 3 and 5: Regulation 2-5-302)

4. a. Prior to removal of the existing Source Testing Requirements for Parts 3 particulate abatement system, the and 5: owner/operator shall conduct source
- a. Prior to removal of the existing testing on the existing shredder particulate abatement system, the abatement system that is intended to be owner/operator shall conduct source used in conjunction with source testing testing on the existing shredder in Part 4b to estimate captured emissions abatement system that is intended to be from the shredder and its associated used in conjunction with source testing systems. Particulate emissions testing in Part 4b to estimate captured emissions



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(filterable and condensable) shall be from the shredder and its associated conducted at the inlet and outlet of the systems. Particulate emissions testing existing PM abatement system. In (filterable and condensable) shall be addition, the owner/operator shall conducted at the inlet and outlet of the estimate the fugitive emission rates that existing PM abatement system. In are not captured by the existing shredder addition, the owner/operator shall enclosure.

- b. estimate the fugitive emission rates that Within 90 days of start-up of A-11 and A- are not captured by the existing shredder 12, the owner/operator shall conduct a enclosure.

- b. District approved source test at stack P- Within 90 days of start-up of A-11 and A- 11, while the S-6 Auto Shredder is 12, the owner/operator shall conduct a operating at or near the maximum District approved source test at stack P- operating rate. The owner/operator shall 11, while the S-6 Auto Shredder is record the shredder processing rate, the operating at or near the maximum water application rates for the infeed operating rate. The owner/operator shall conveyor and the shredder, the water flow record the shredder processing rate, the rates and the pressure differential water application rates for the infeed operating ranges at each venturi conveyor and the shredder, the water flow scrubber, and the ventilation fan rates and the pressure differential amperage during the source test. The operating ranges at each venturi source test shall determine the hourly scrubber, and the ventilation fan emission rate and the average emission amperage during the source test. The



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factor (pounds of pollutant per ton of source test shall determine the hourly material processed by the shredder) for emission rate and the average emission the following compounds: total POC, PM, factor (pounds of pollutant per ton of benzene, tetrachloroethylene, material processed by the shredder) for trichloroethylene, hexavalent chromium, the following compounds: total POC, PM, PCBs, cadmium, and lead, and shall benzene, tetrachloroethylene, determine the outlet grain loading to trichloroethylene, hexavalent chromium, demonstrate compliance with Part 5. In PCBs, cadmium, and lead, and shall addition, the owner/operator shall determine the outlet grain loading to conduct PM testing at the inlet to the A- demonstrate compliance with Part 5. In 11 and A-12 Venturi Scrubbers to addition, the owner/operator shall determine the PM removal efficiency conduct PM testing at the inlet to the A- achieved by A-11 and A-12. The 11 and A-12 Venturi Scrubbers to owner/operator shall also establish the determine the PM removal efficiency ventilation fan amperage range necessary achieved by A-11 and A-12. The to operate the venture scrubbers within owner/operator shall also establish the the effective pressure differential ventilation fan amperage range necessary ranges determined above.

- c. to operate the venture scrubbers within The owner/operator shall submit a source the effective pressure differential test protocol for the post enclosure ranges determined above.
- c. construction compliance test to the Air The owner/operator shall submit a source District's Source Test Section Manager test protocol for the post enclosure



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and to the Permit Engineer at least 30 construction compliance test to the Air days prior to the scheduled test date. District's Source Test Section Manager The owner/operator shall submit a source and to the Permit Engineer at least 30 test protocol for the pre-demolition days prior to the scheduled test date. source test to the Air District's Source Test Section Manager and to the Permit Engineer as soon as possible.

- d. source test to the Air District's Source Test Section Manager and to the Permit Engineer as soon as possible.
- d. scheduled test date at least 7 days prior The owner/operator shall notify the to the scheduled test date and shall Source Test Section Manager of the obtain District approval for all source scheduled test date at least 7 days prior test procedures prior to conducting any to the scheduled test date and shall testing.
- e. obtain District approval for all source The owner/operator shall submit a copy of test procedures prior to conducting any the source test report to the Source Test Section Manager within 60 days of the
- e. The owner/operator shall submit a copy of test date. the source test report to the Source Test (Basis: Cumulative Increase and Regulation Section Manager within 60 days of the 2-5-302)

test date.

- 5. The owner/operator shall apply water sprays (A- (Basis: Cumulative Increase and Regulation 2-5-6) at the shredder, S-6, and infeed conveyor,



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302)

5. S-7, at a sufficient rate to ensure that non-metallic material exiting the sources is moist 6) at the shredder, S-6, and infeed conveyor, to the touch at all times of operation. The PM S-7, at a sufficient rate to ensure that non-grain loading at the exhaust stack P-11 shall metallic material exiting the sources is moist not exceed 0.01 gr/dscf. (Basis: Cumulative to the touch at all times of operation. The PM Increase, TBACT; and Regulation 2-5-302)
6. grain loading at the exhaust stack P-11 shall The owner/operator shall operate the Recycling not exceed 0.01 gr/dscf. (Basis: Cumulative Center in such a manner that particulate Increase, TBACT; and Regulation 2-5-302)
6. emissions into the atmosphere from any The owner/operator shall operate the Recycling operation/equipment for a period or periods Center in such a manner that particulate aggregating more than three minutes in any emissions into the atmosphere from any hour shall not cause a visible emission which operation/equipment for a period or periods is as dark or darker than No. 0.5 on the aggregating more than three minutes in any Ringelmann Chart, or of such opacity as to hour shall not cause a visible emission which obscure an observer's view to an equivalent or is as dark or darker than No. 0.5 on the greater degree or result in fallout on Ringelmann Chart, or of such opacity as to adjacent property in such quantities as to obscure an observer's view to an equivalent or cause public nuisance per District Regulation greater degree or result in fallout on 1-301. (Basis: Regulations 1-301 and 6-1-301)
7. adjacent property in such quantities as to The owner/operator shall use water spray to



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cause public nuisance per District Regulation
minimize fugitive dust emissions from
1-301. (Basis: Regulations 1-301 and 6-1-301)

7. material/scrap handling and storage to comply
The owner/operator shall use water spray to
with Part 6. The owner/operator shall operate
minimize fugitive dust emissions from
the facility at all times in accordance with
material/scrap handling and storage to comply
its approved Emissions Minimization Plan
with Part 6. The owner/operator shall operate
(EMP). (Basis: Regulations 1-301, 6-1-301, and
the facility at all times in accordance with
6-4-301)

8. its approved Emissions Minimization Plan
The owner/operator shall not exceed a total of
(EMP). (Basis: Regulations 1-301, 6-1-301, and
26 ship calls and 63,875 truck calls per
6-4-301)

8. calendar year to haul in/out scrap/materials
The owner/operator shall not exceed a total of
at the facility. (Basis: health risk
26 ship calls and 63,875 truck calls per
assessment for CEQA review)

9. calendar year to haul in/out scrap/materials
In order to demonstrate compliance with Part 1
at the facility. (Basis: health risk
and 8, the owner/operator shall keep records
assessment for CEQA review)

9. of monthly and yearly throughput of materials,
In order to demonstrate compliance with Part 1
ship and truck calls in a District approved
and 8, the owner/operator shall keep records
log. The log shall be maintained for a period
of monthly and yearly throughput of materials,
of at least 24 months from the date of data
ship and truck calls in a District approved
entry and shall be made available to the
log. The log shall be maintained for a period



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District staff for inspection upon request.
of at least 24 months from the date of data
(Basis: Regulations 2-1-301 and 2-5-302,
entry and shall be made available to the
Cumulative Increase, CEQA)
District staff for inspection upon request.
(Basis: Regulations 2-1-301 and 2-5-302,
Cumulative Increase, CEQA)

~~~~~ END OF CONDITIONS ~~~~~

| S#          | Source Description                         | Annual Average lbs/day |      |     |     |    |
|-------------|--------------------------------------------|------------------------|------|-----|-----|----|
|             |                                            | PART                   | ORG  | NOx | SO2 | CO |
| 6           | Shredder w/ water injection, electric, 225 | 2.14                   | 33.2 | -   | -   | -  |
| 7           | Infeed Conveyor (electric)                 | -                      | -    | -   | -   | -  |
| 10          | Cement Silo                                | -                      | -    | -   | -   | -  |
| 11          | Joint Products Plants w/ enclosure (2 Trom | -                      | -    | -   | -   | -  |
| 12          | Drum Magnet Line W/ enclosure              | -                      | -    | -   | -   | -  |
| T O T A L S |                                            | 2.15                   | 33.2 |     |     |    |

\*\* PLANT TOTALS FOR EACH EMITTED TOXIC POLLUTANT \*\*

| Pollutant Name       | Emissions lbs/day |
|----------------------|-------------------|
| Benzene              | .02               |
| Trichloroethylene    | .11               |
| Methylene chloride   | .10               |
| Lead (all) pollutant | .01               |